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FIG. 1A

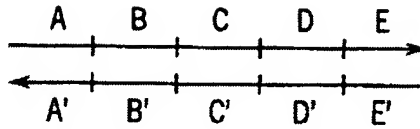


FIG. 1B

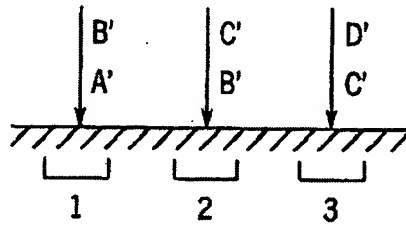


FIG. 1C

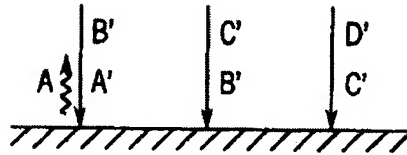


FIG. 1D

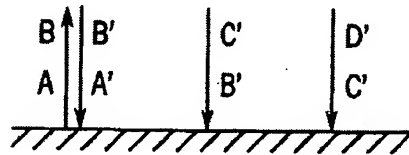


FIG. 1E

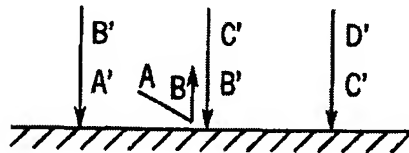


FIG. 1F

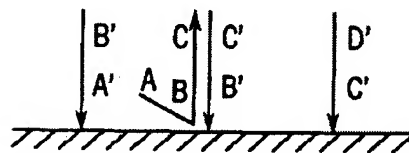


FIG. 2A

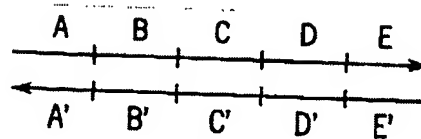


FIG. 2B

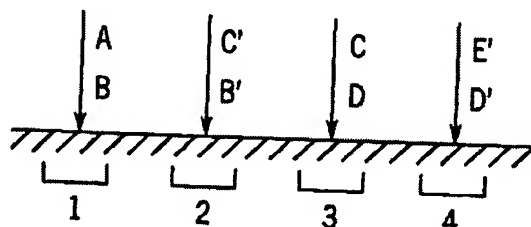


FIG. 2C

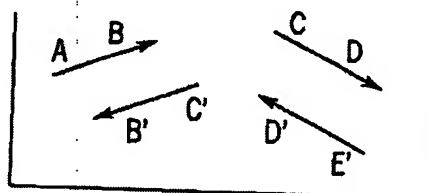


FIG. 2D

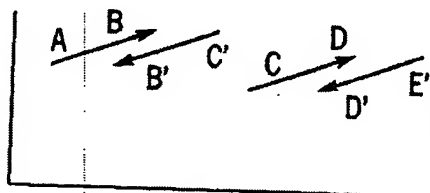


FIG. 2E

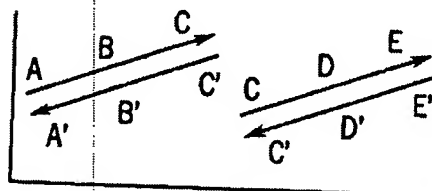


FIG. 2F

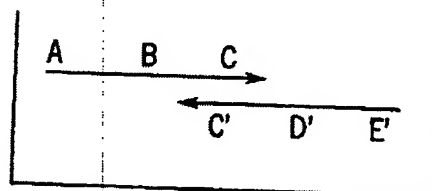


FIG. 2G

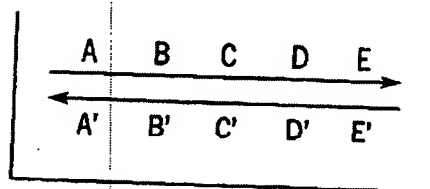


FIG. 3A

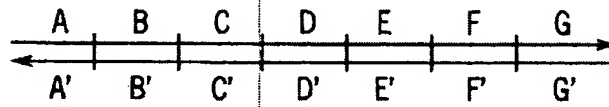


FIG. 3B

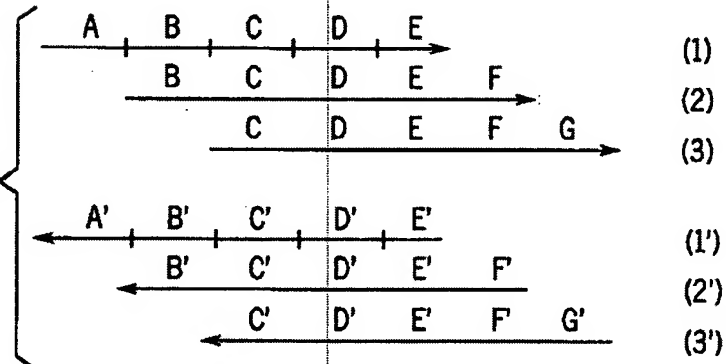


FIG. 3C

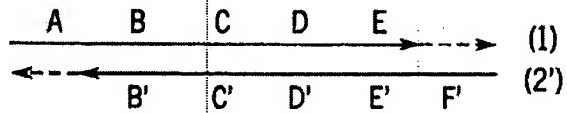


FIG. 3D

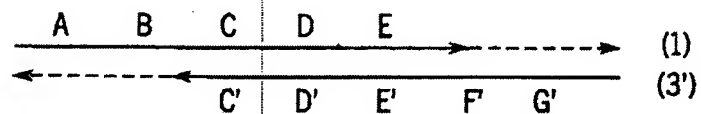


FIG. 4

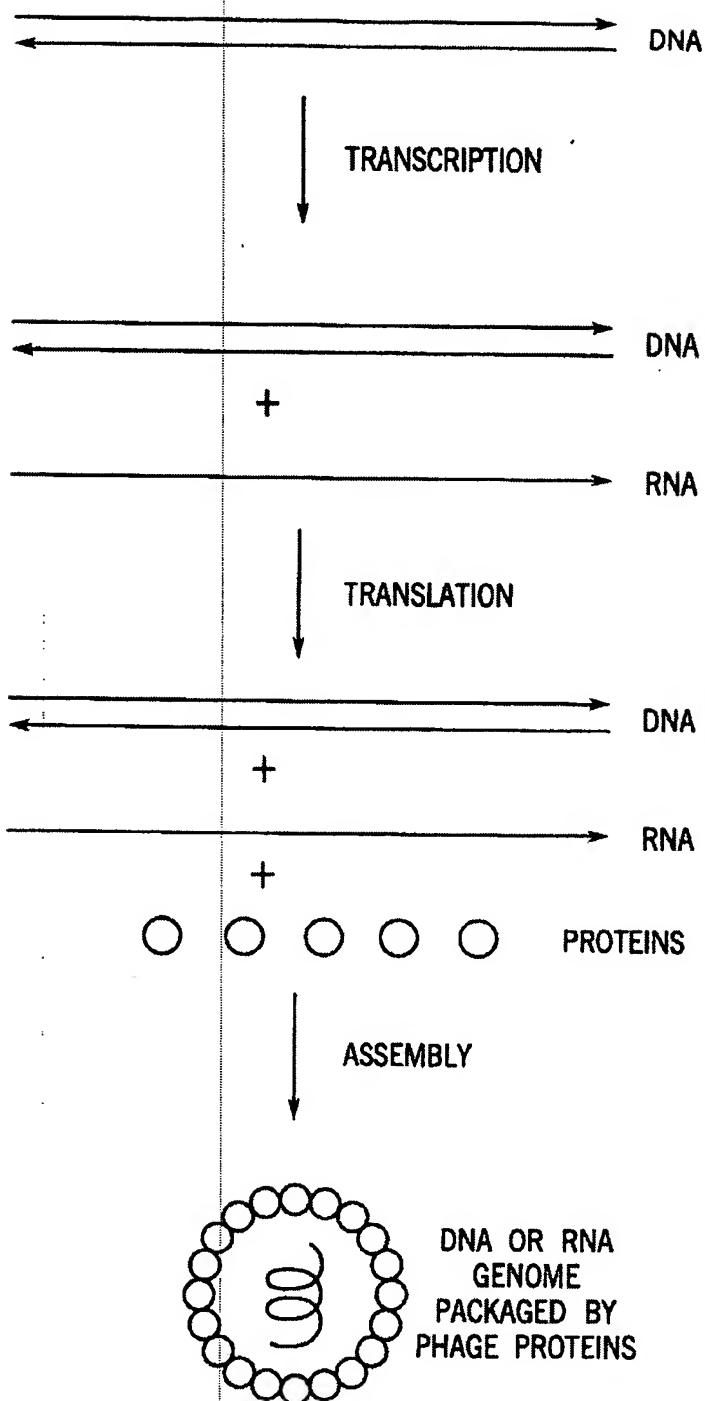


FIG. 5

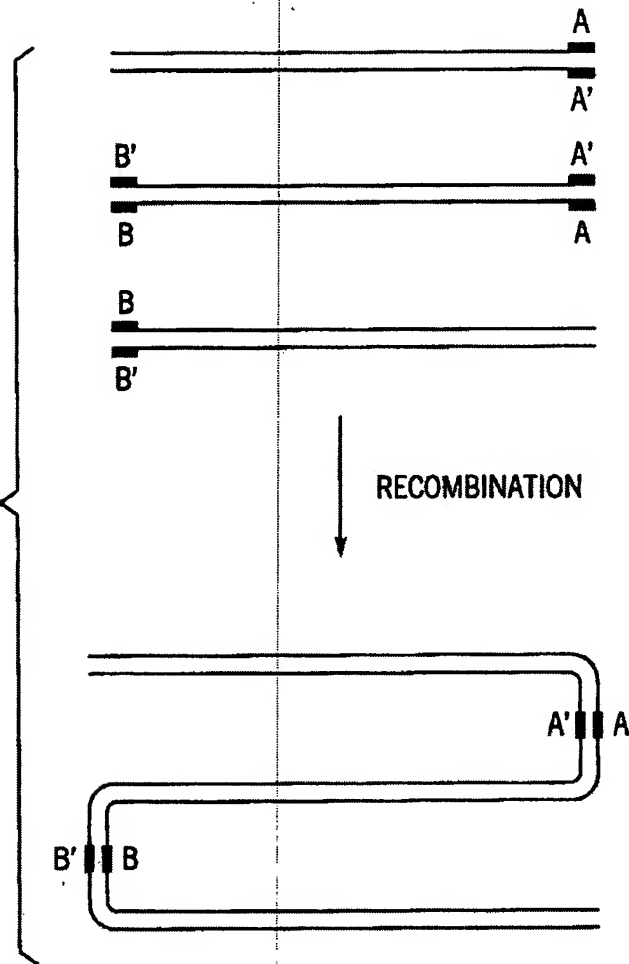
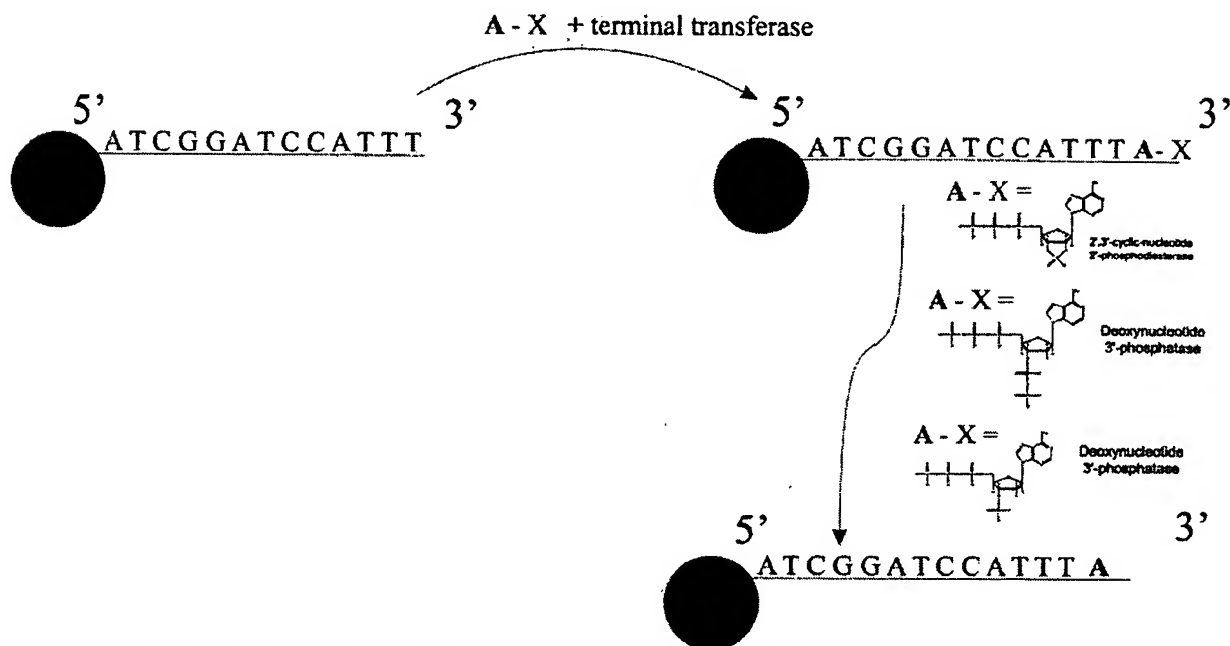


Figure 6A

Single strand oligonucleotide synthesis with phosphate or derivative capping group



Single or double strand oligonucleotide synthesis with carbohydrate or peptide capping group.

Figure 6B

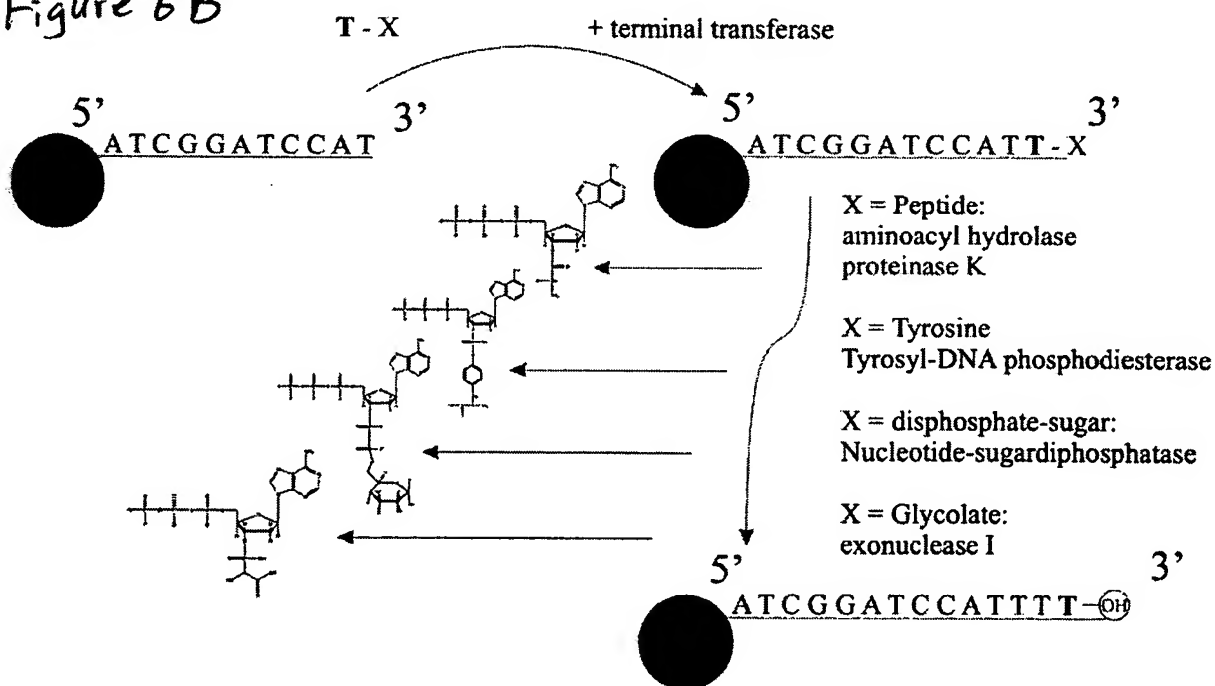


Figure 7

Double stranded oligonucleotide synthesis with restriction site oligonucleotide cap.

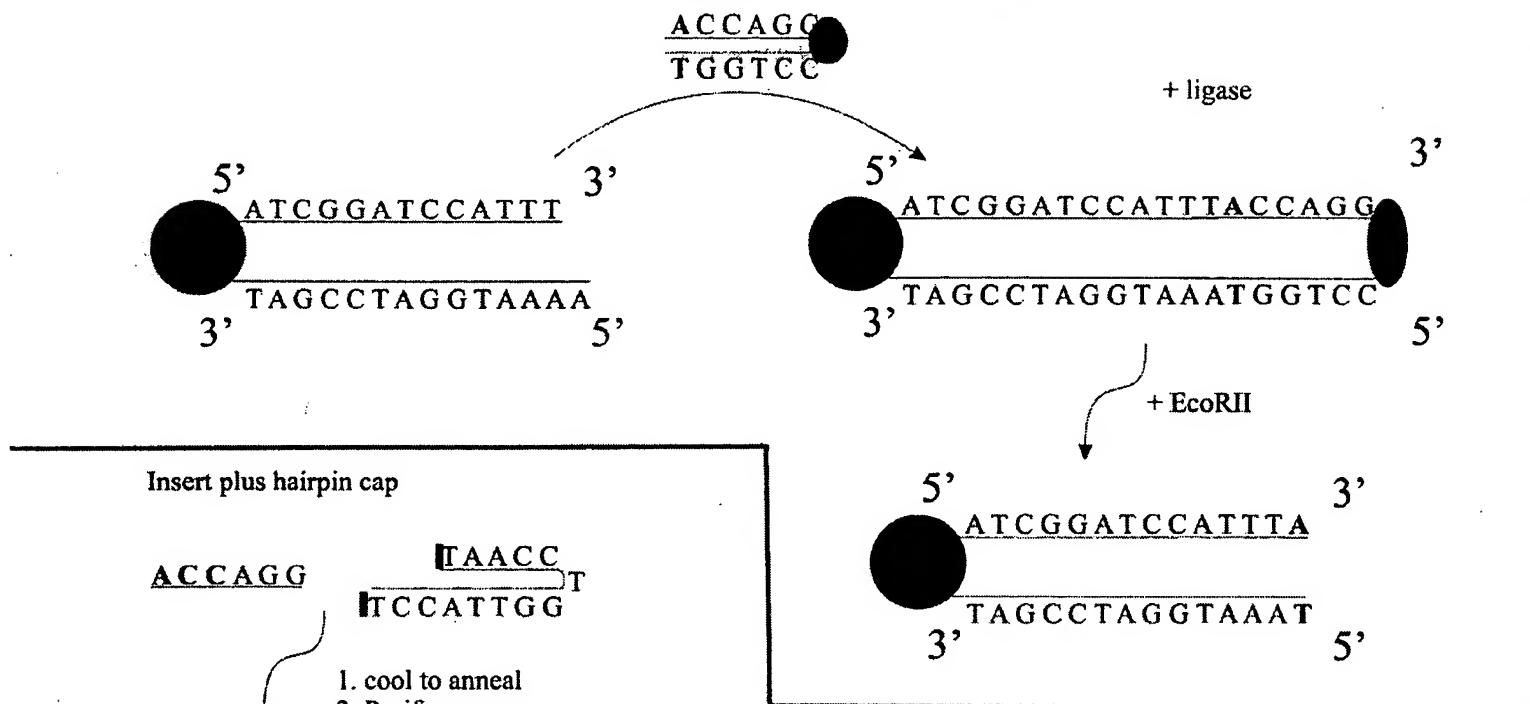


Fig 8A

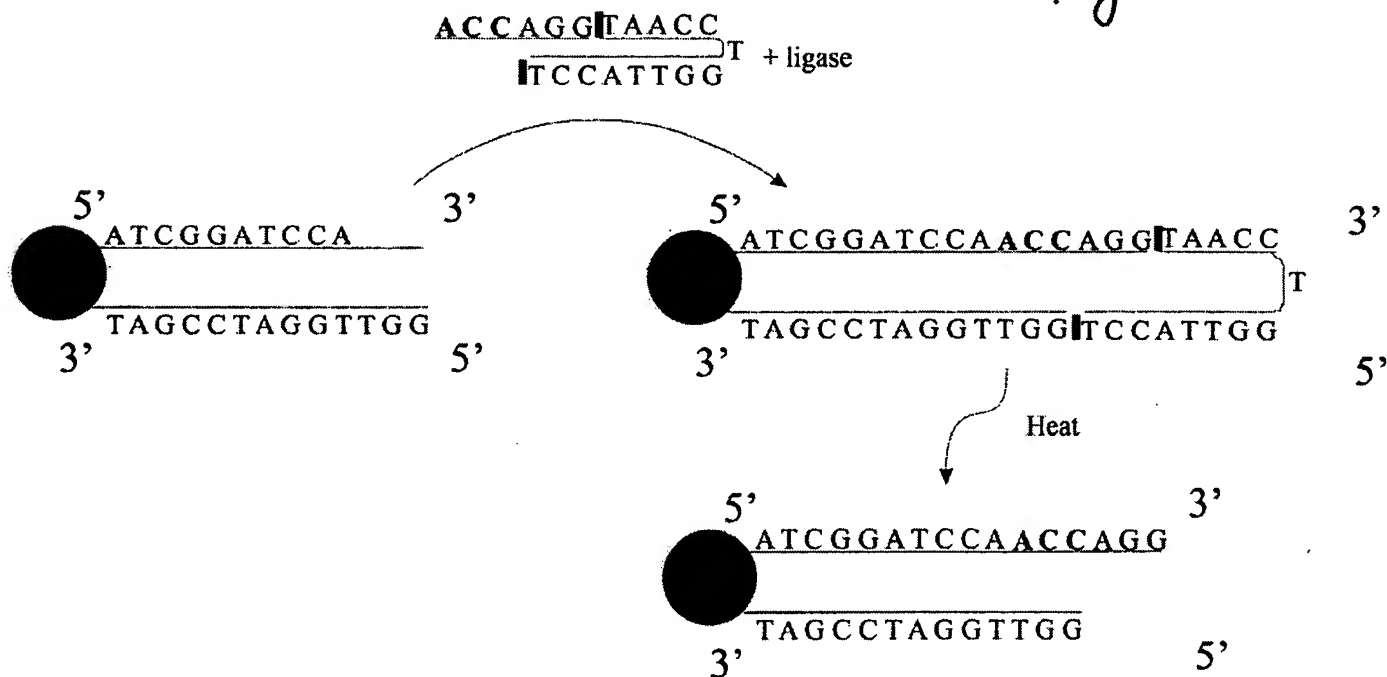
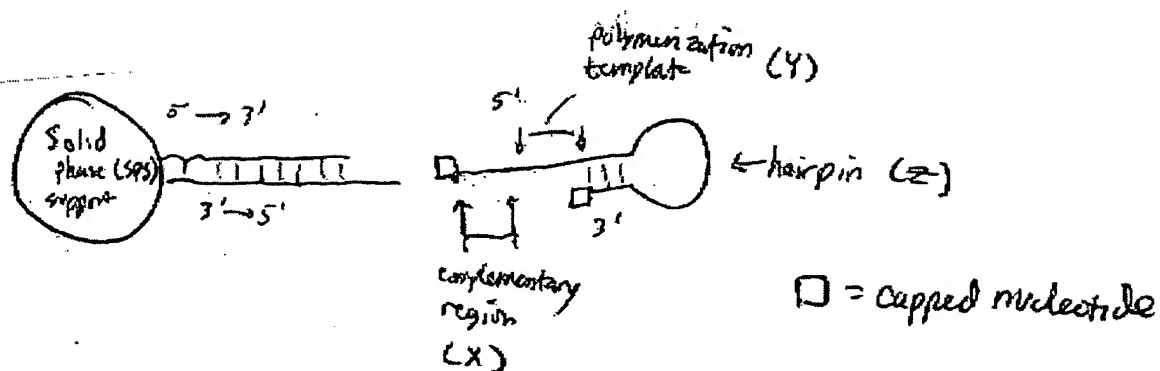
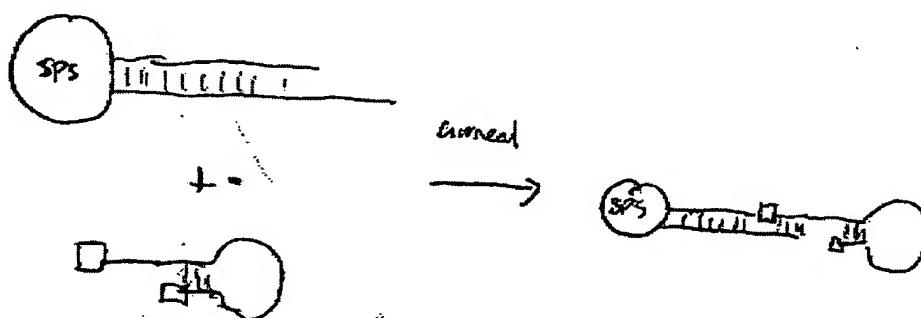


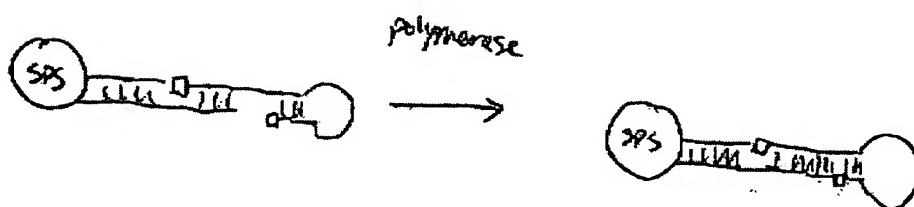
Figure 8B



Step 1



Step 2



Step 3

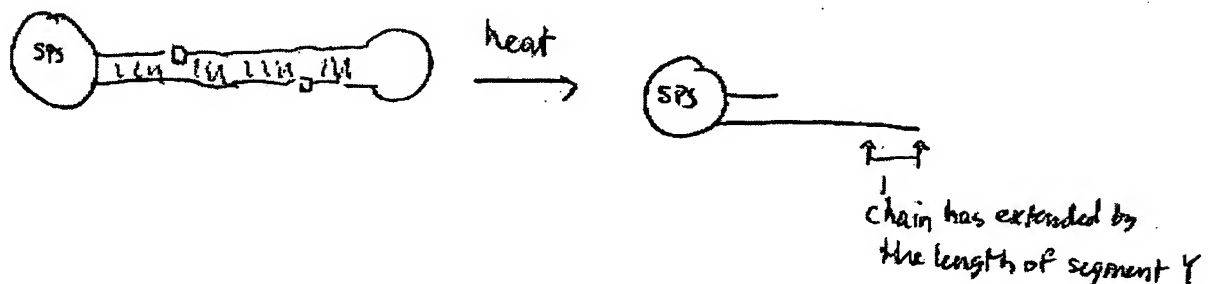
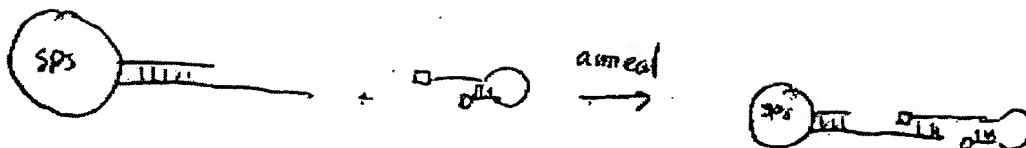
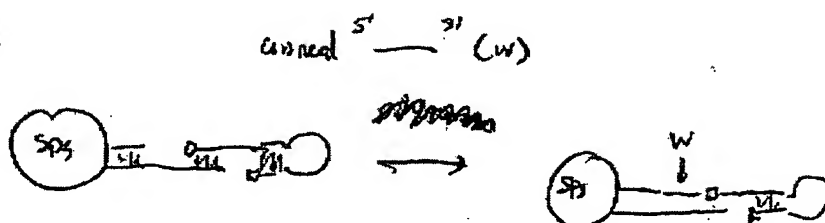


Figure 8C

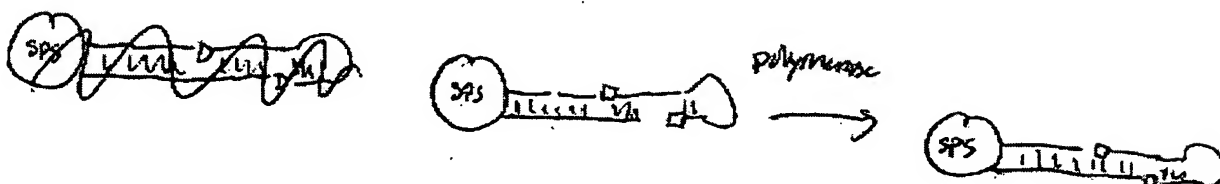
Step 1



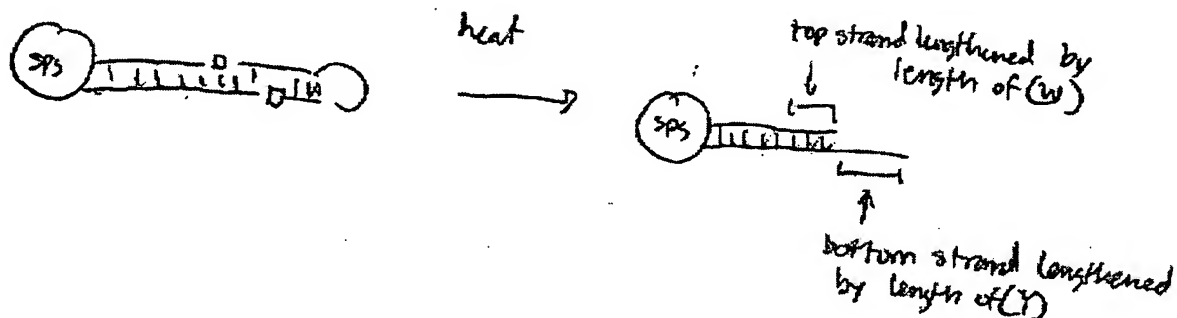
Step 2



Step 3



Step 4



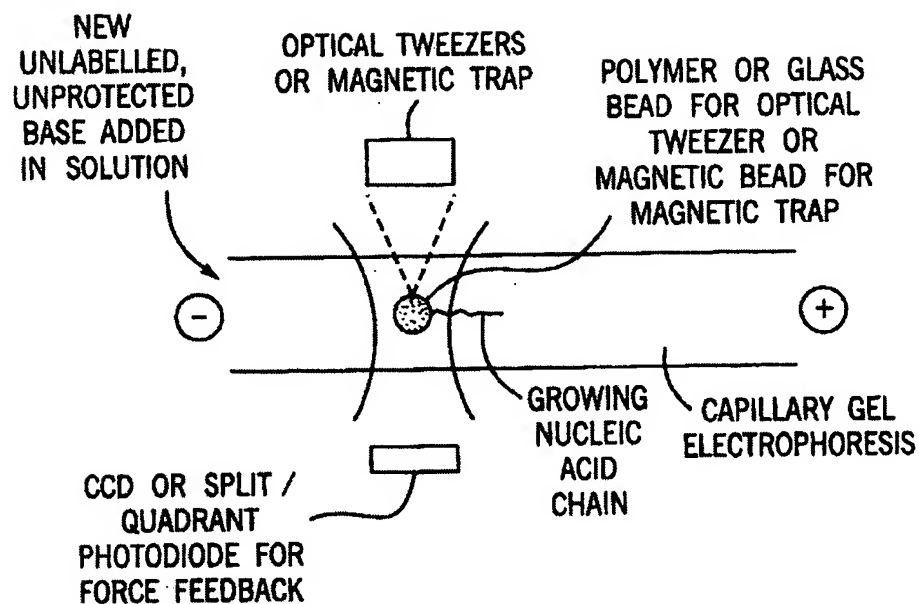


FIG. 9A

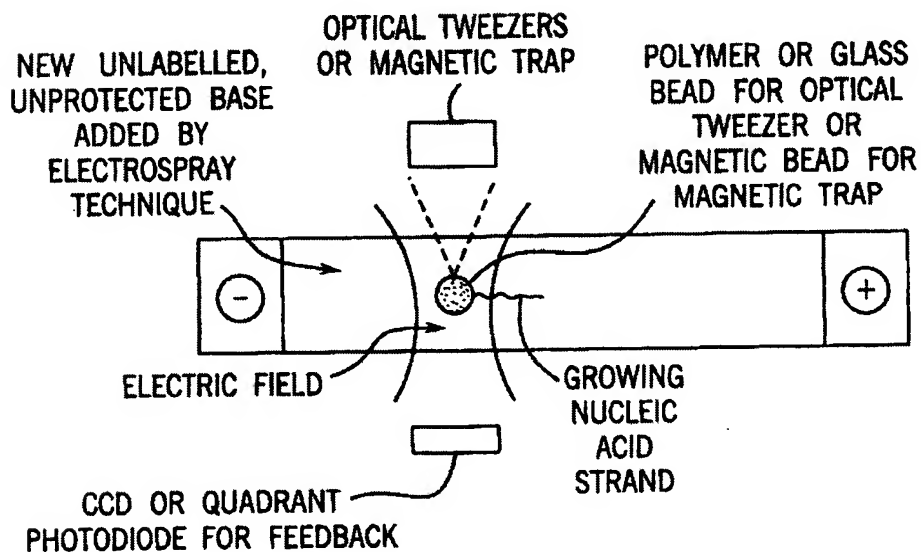


FIG. 9B

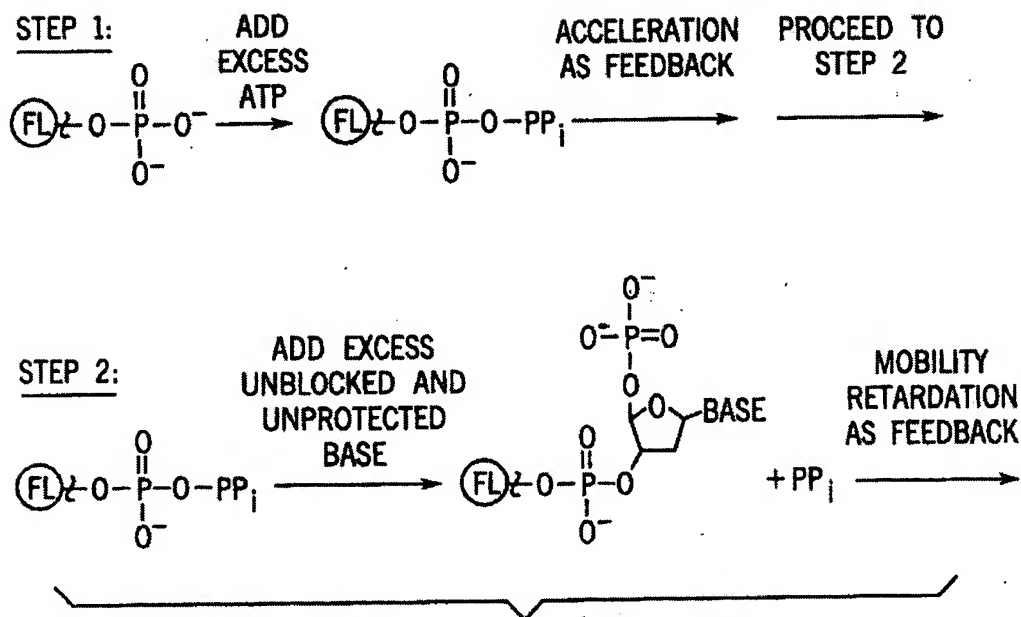
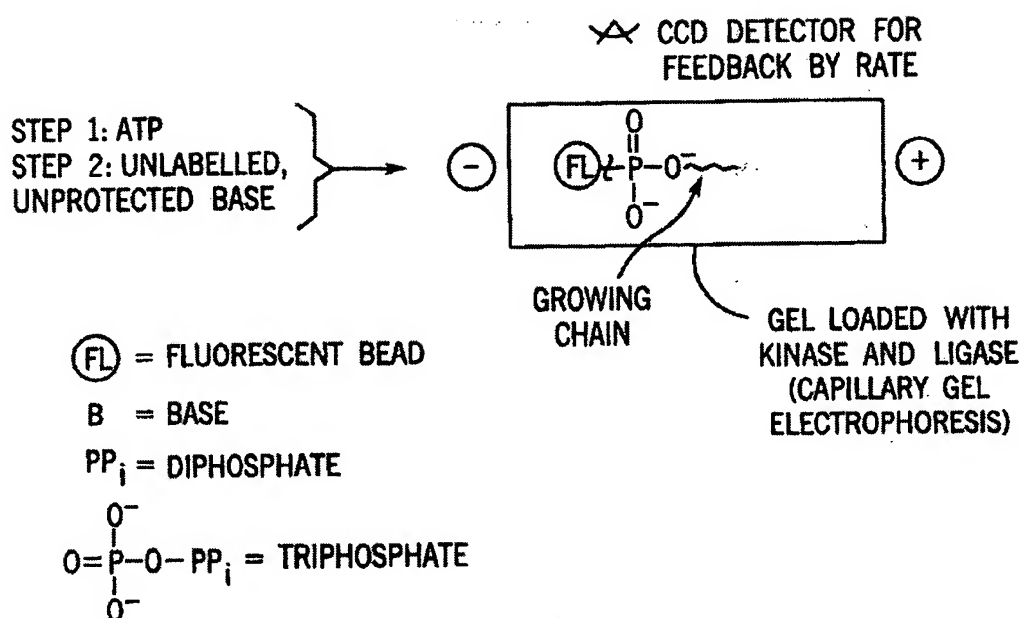


FIG. 10

Figure 11A

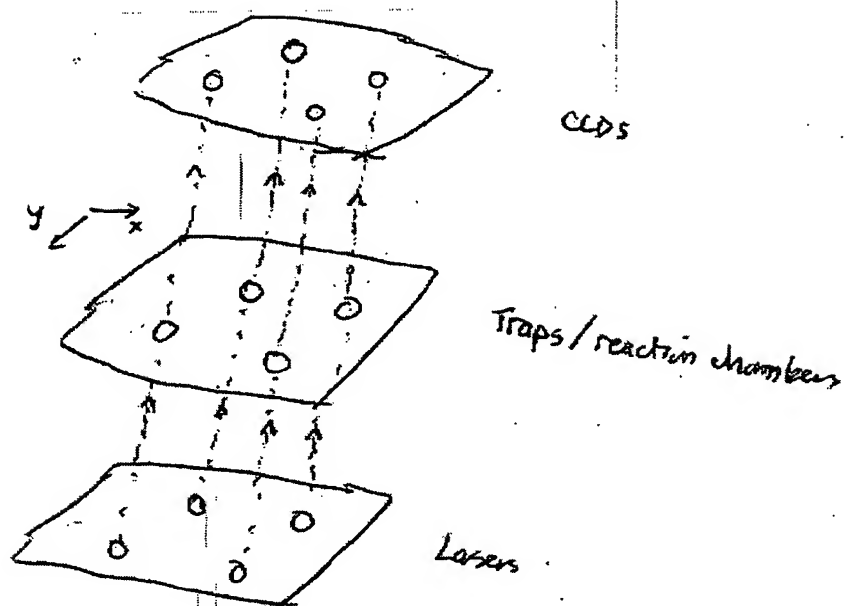


Figure 11B

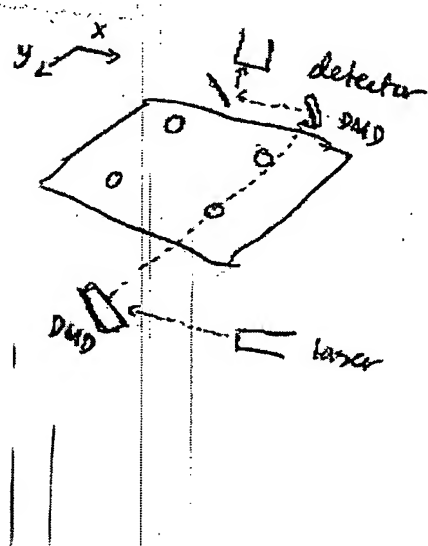


Fig. 12A

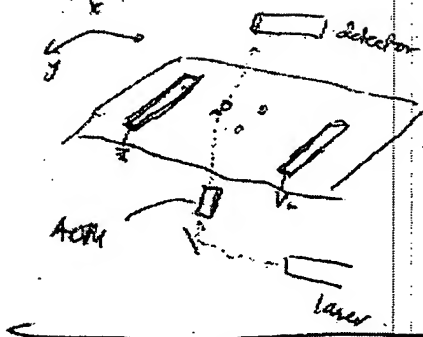


Fig 12B

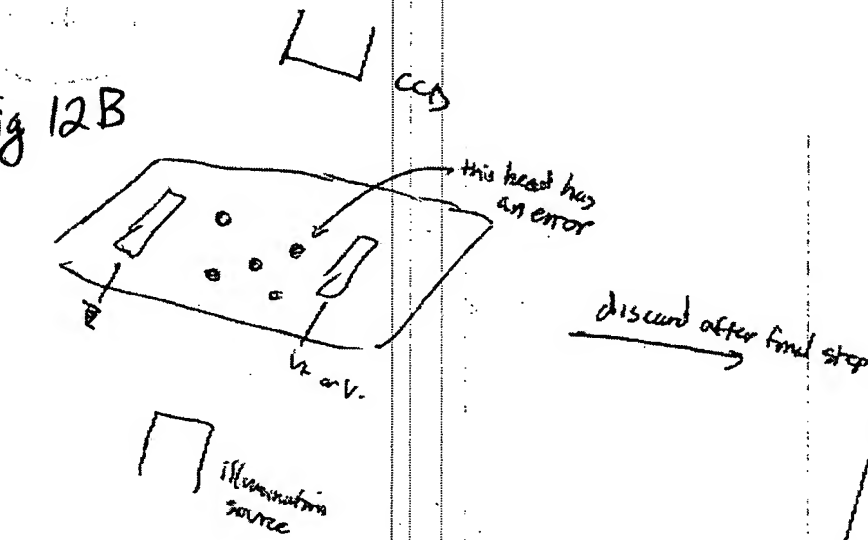
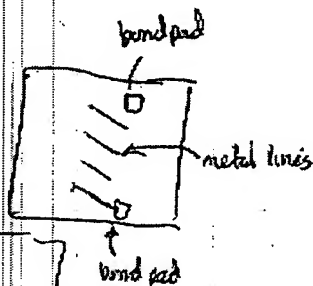
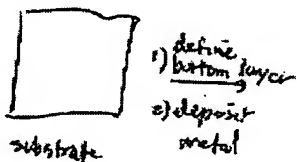


Fig 13A

top down view



3) define magnetic core
4) deposit core

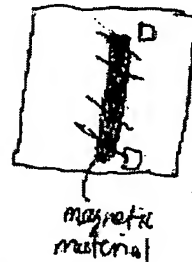
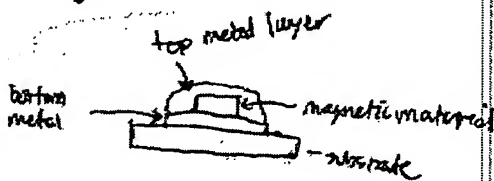


Fig 13B



5) define metal layer

6) deposit metal layer



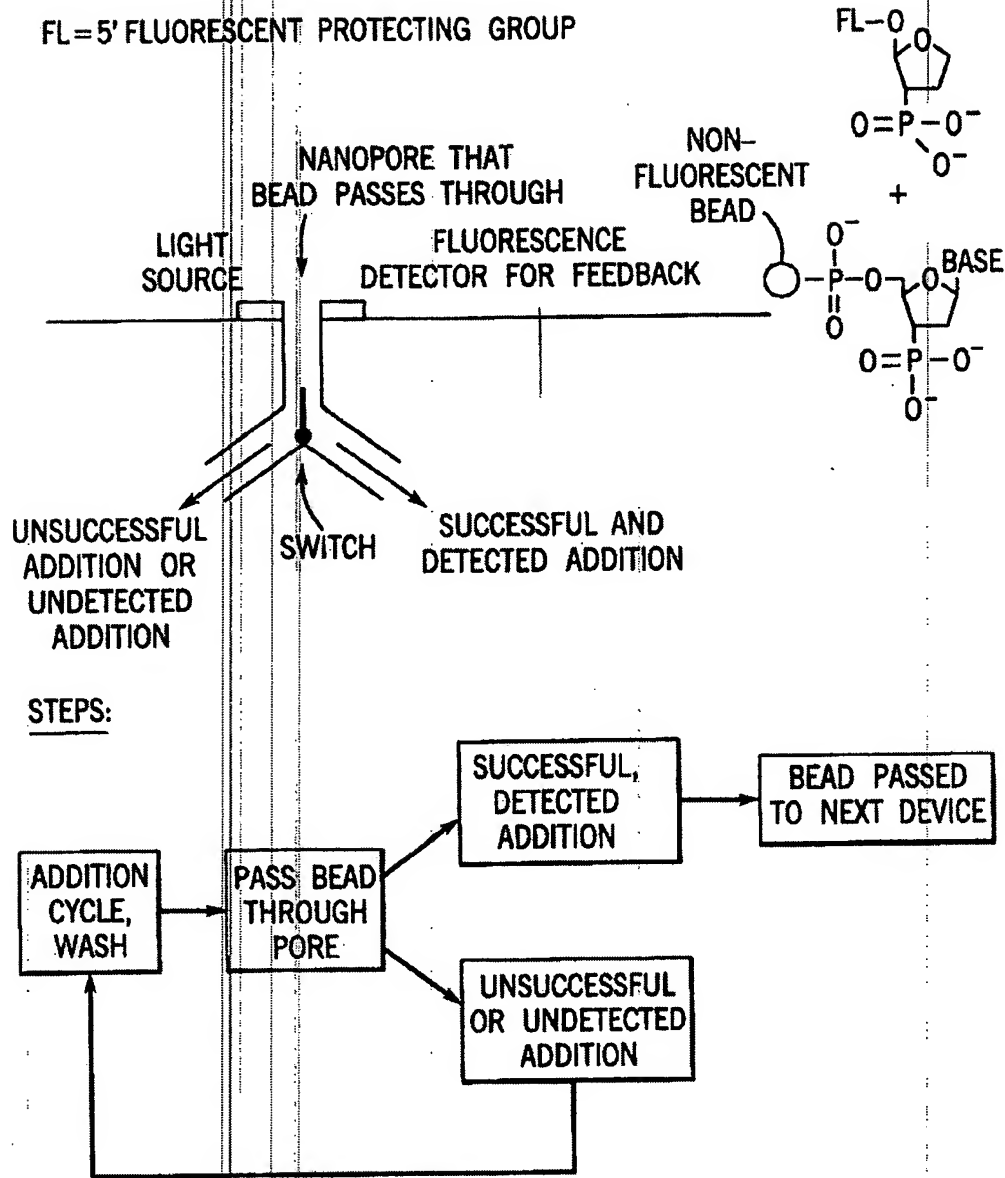


FIG. 14A

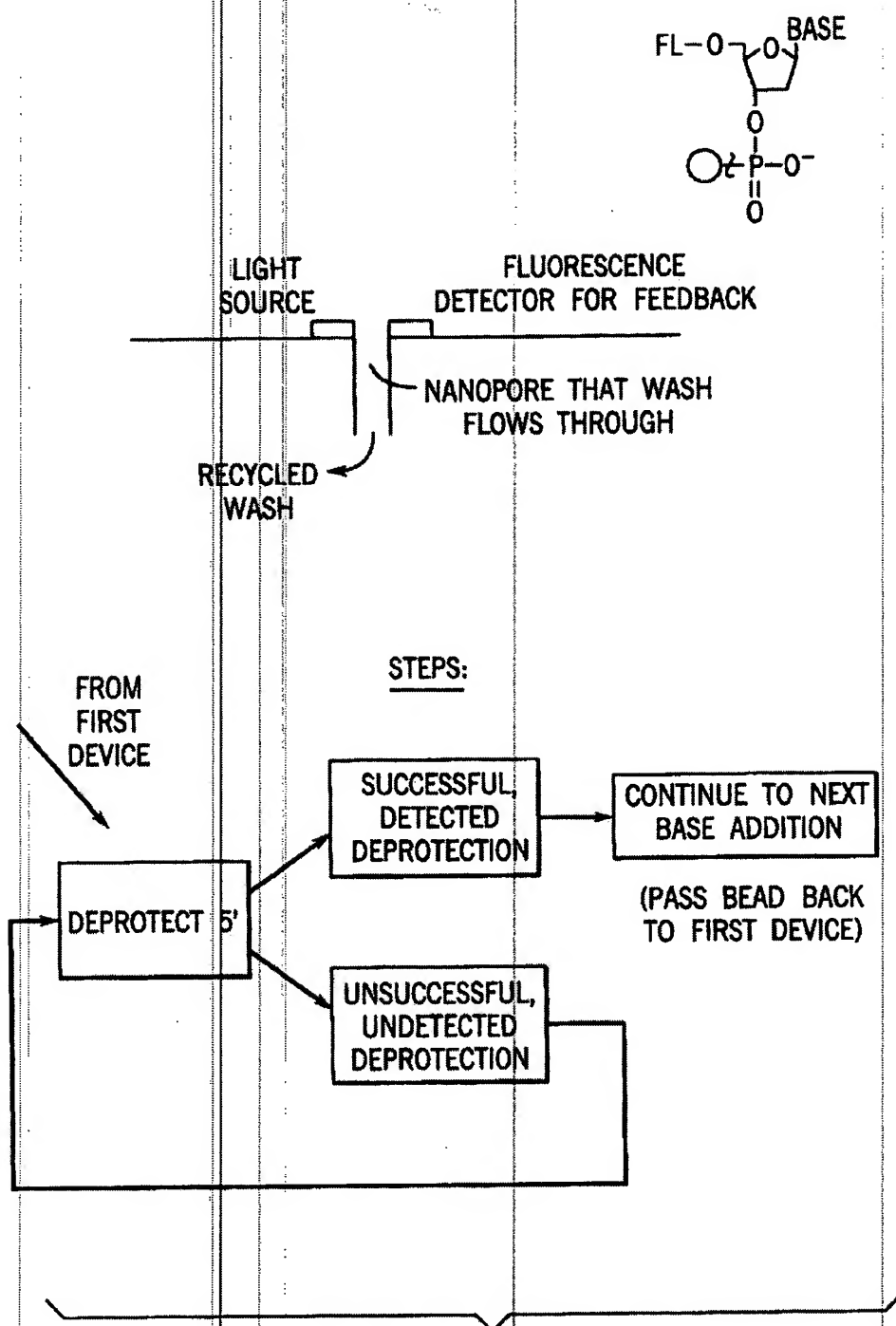


FIG. 14B

Figure 15A

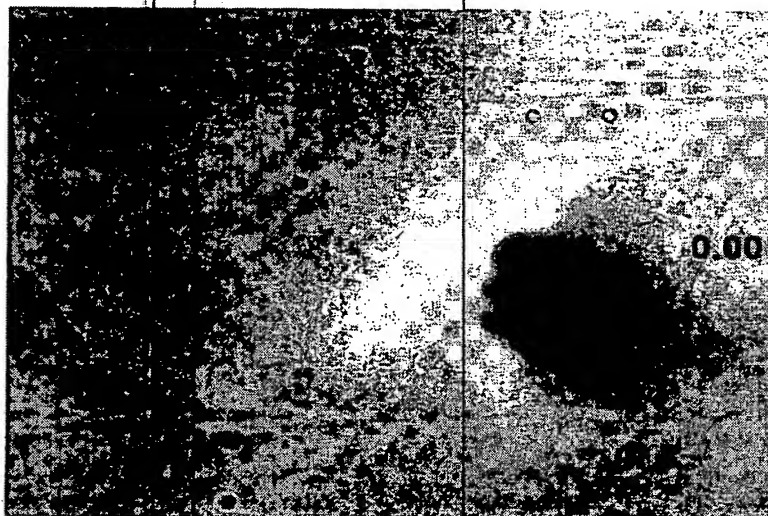


Figure 15B

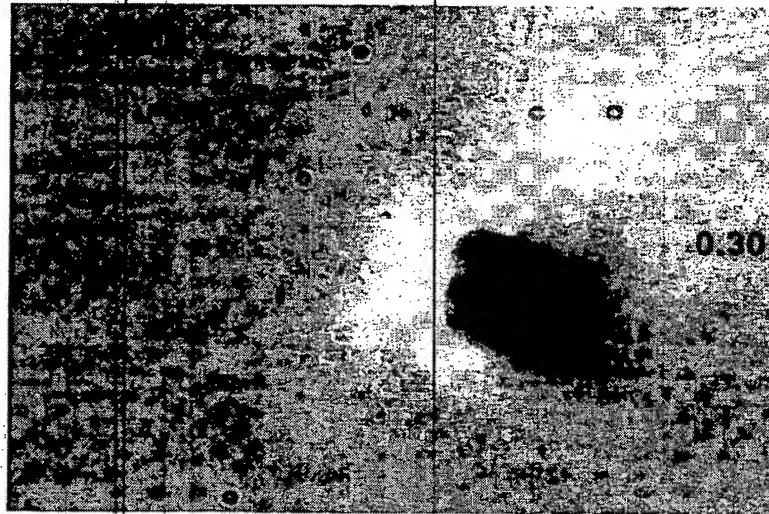


Figure 15C

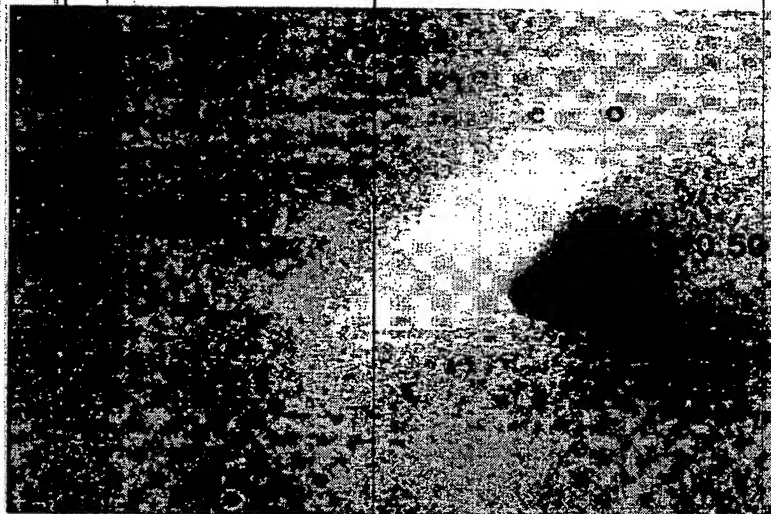


Figure 15D

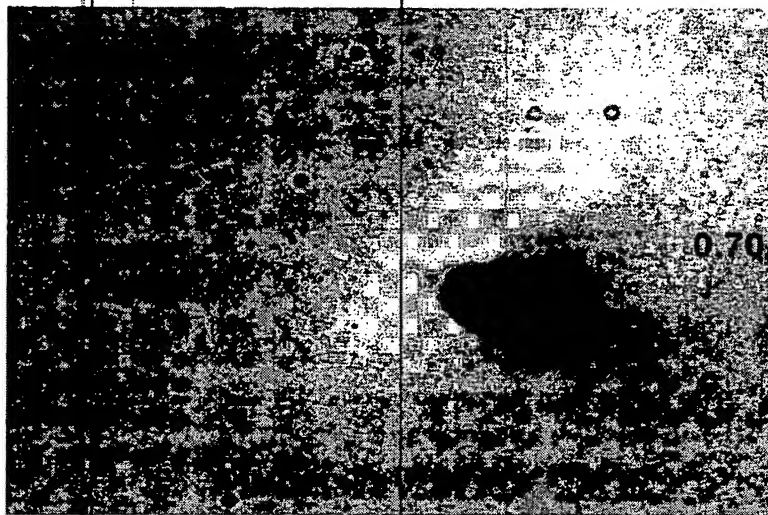
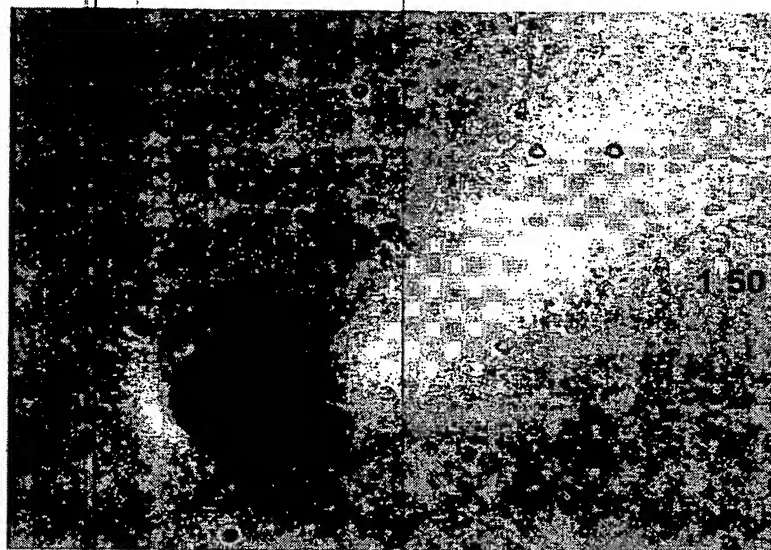


Figure 15E



Top down

Al plated slide

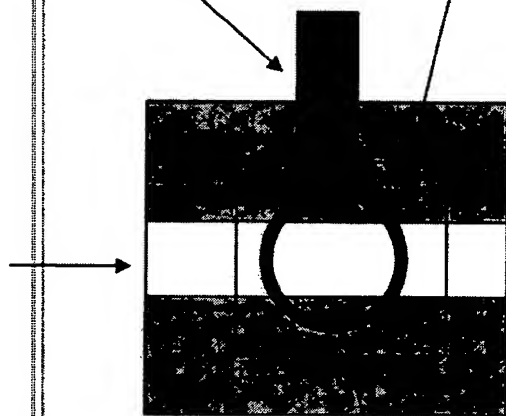
Magnetic pole

Rubber gasket

Glass cover slip

V+ GND

Figure 15F



Side view

Fig. 15G

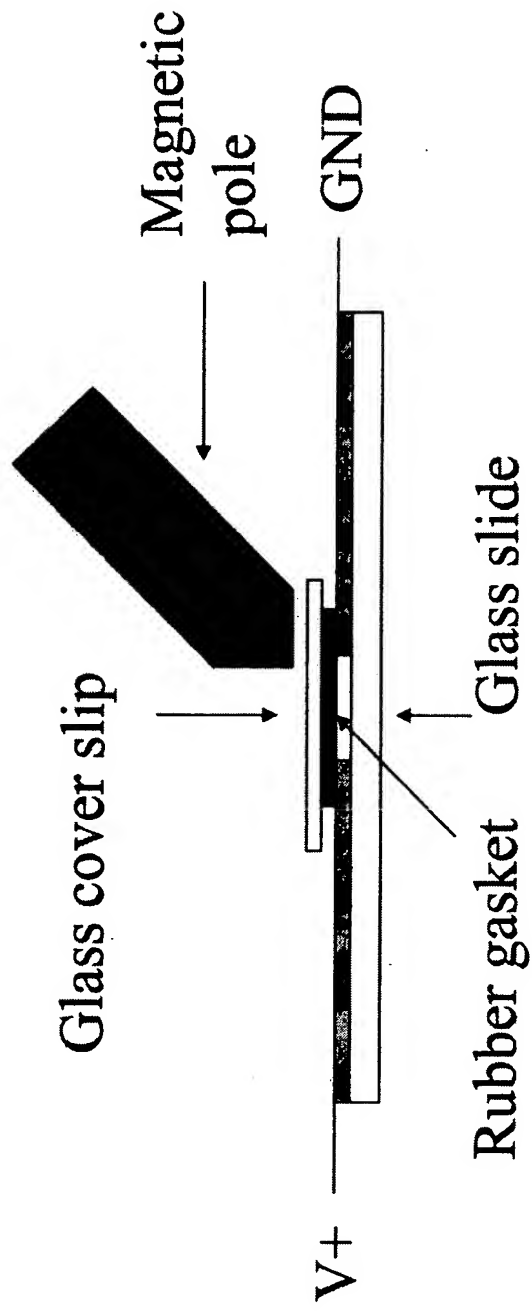


FIG. 16A

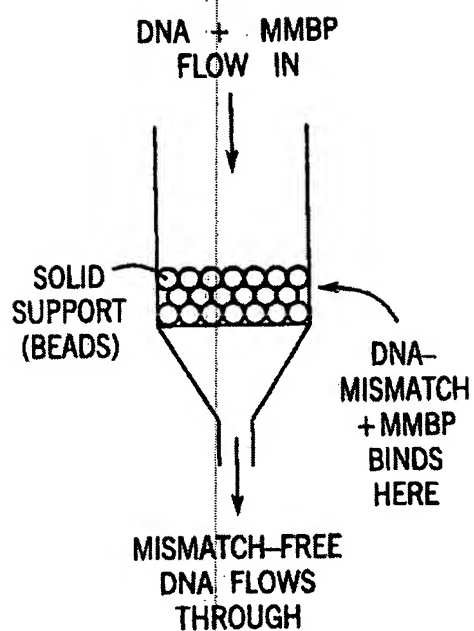
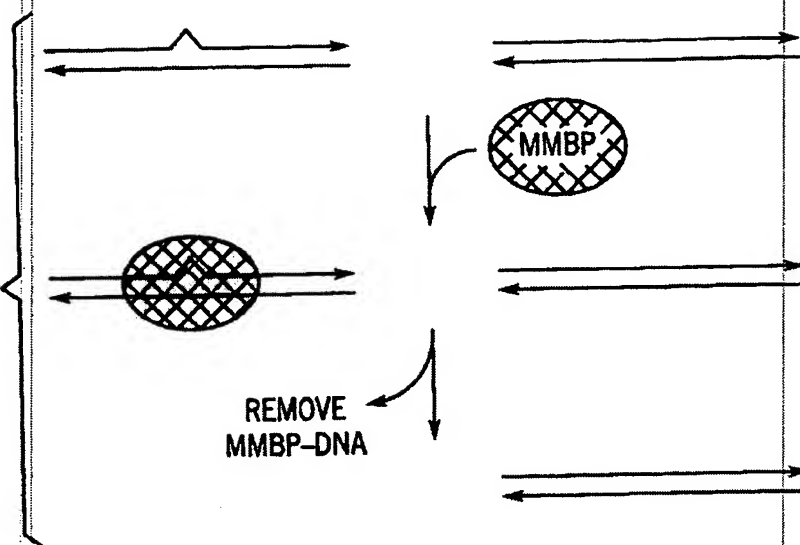


FIG. 16B

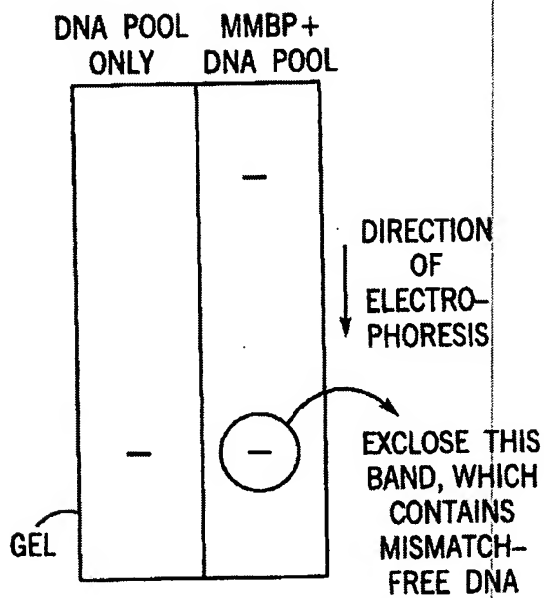


FIG. 16C

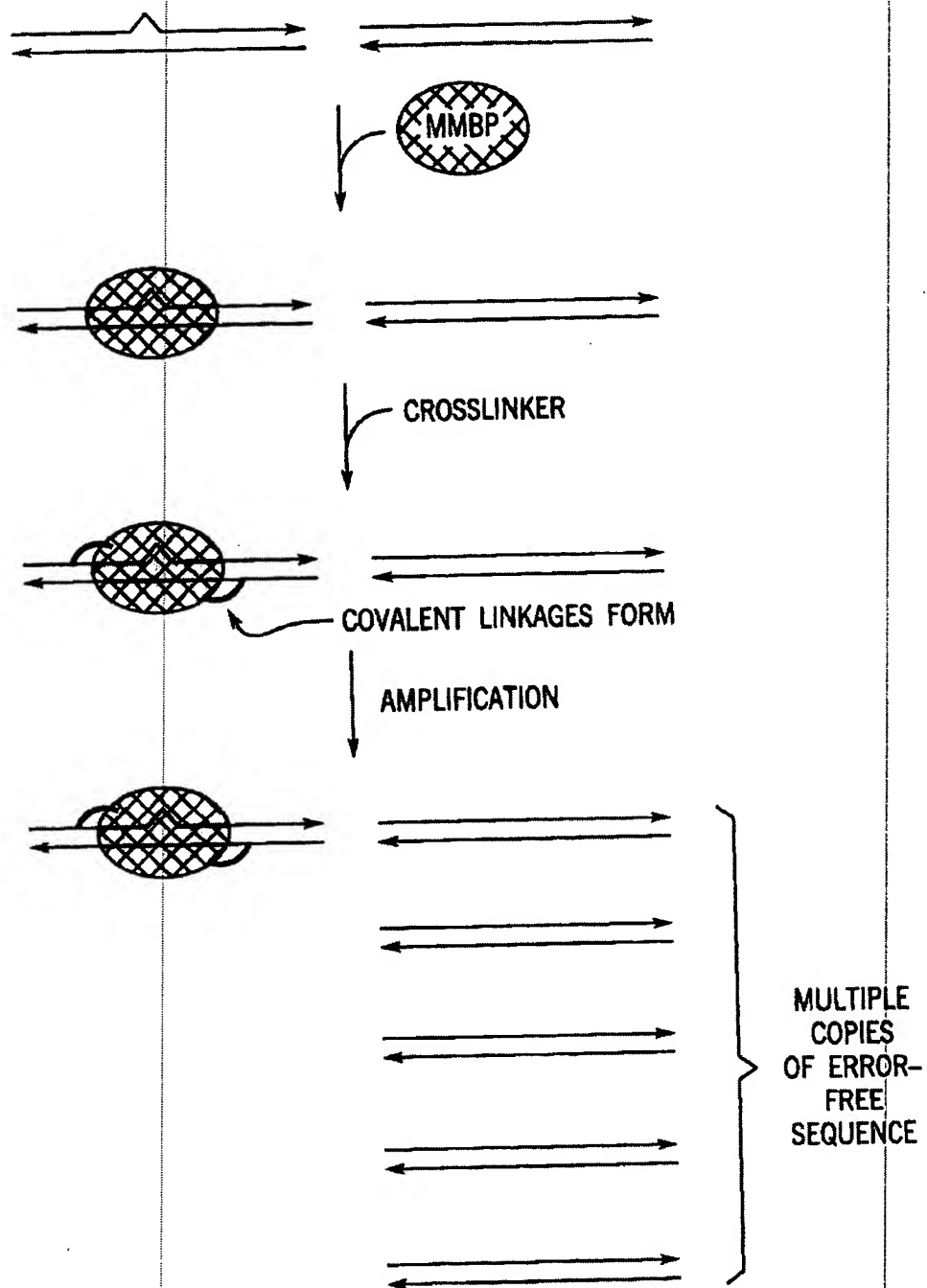


FIG. 17

FIG. 18

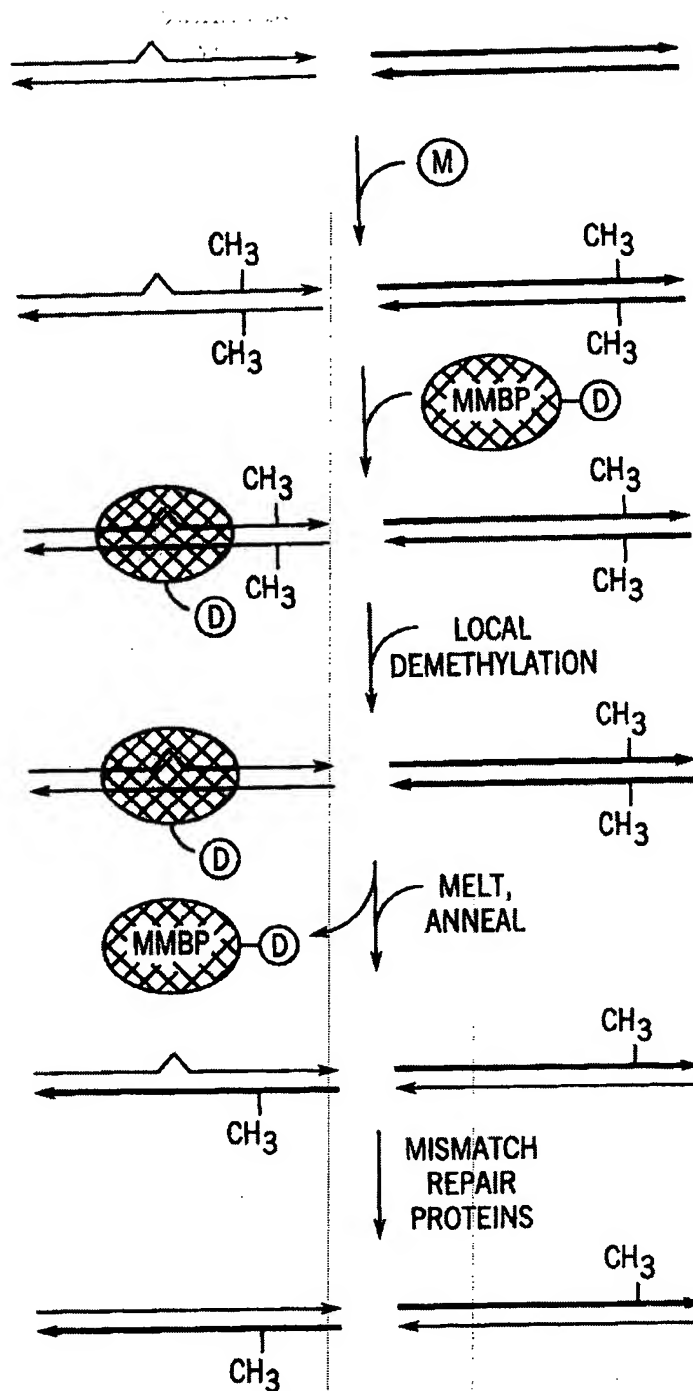


FIG. 19

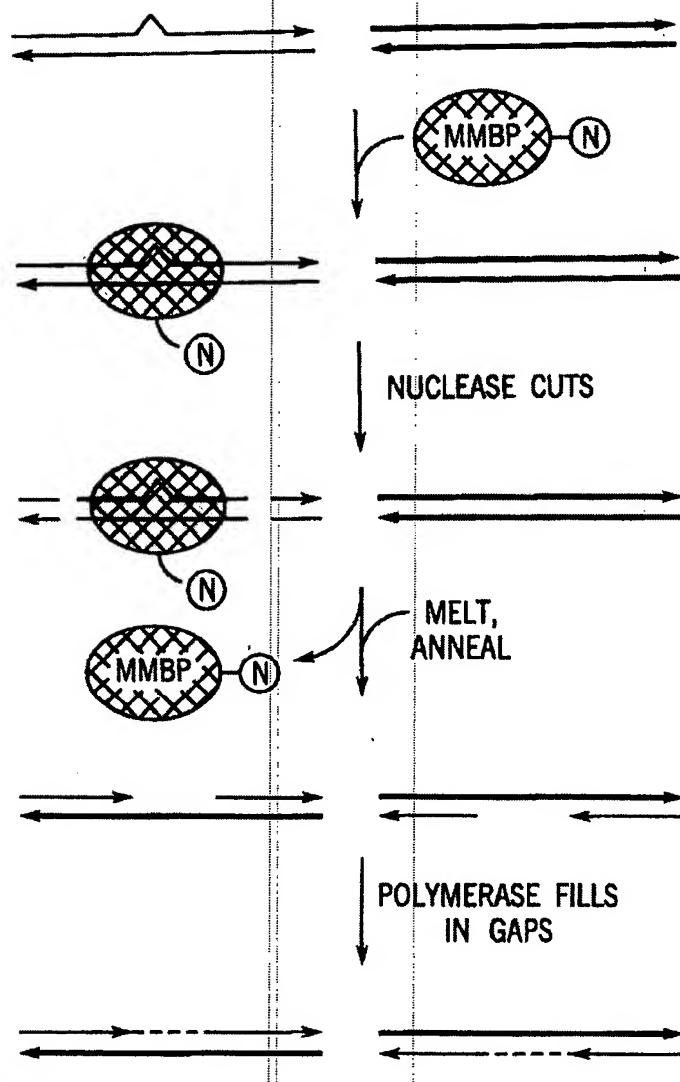
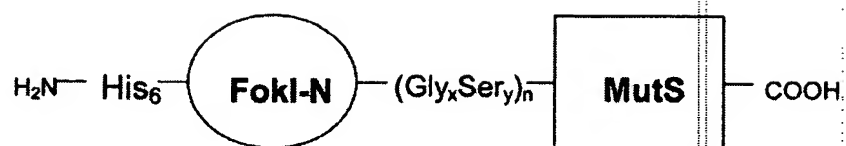


Figure 20

A)



B)

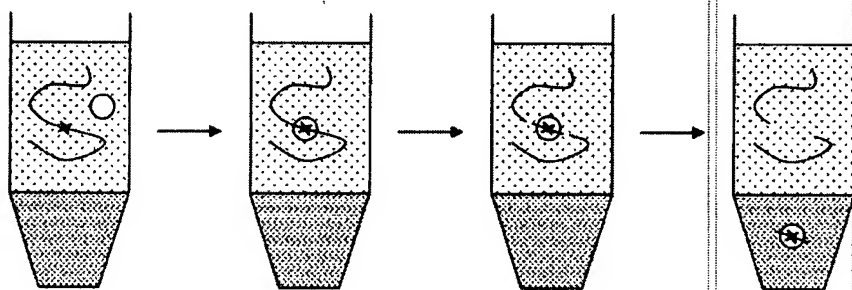


FIG. 21A

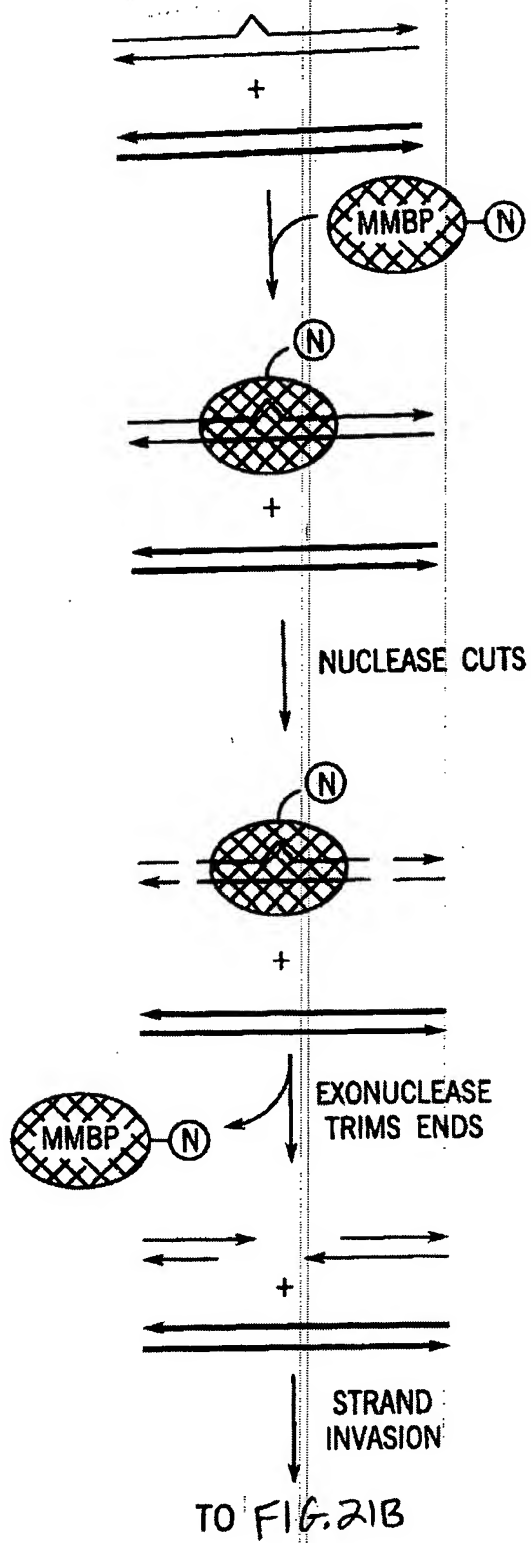
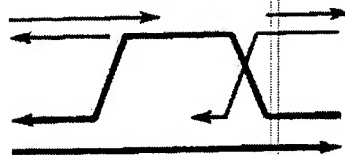
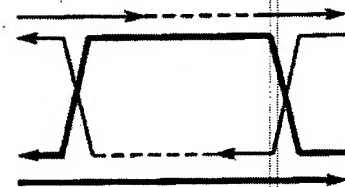


FIG. 21B

FROM FIG. 21A



DNA SYNTHESIS,
BRANCH MIGRATION



RESOLUTION

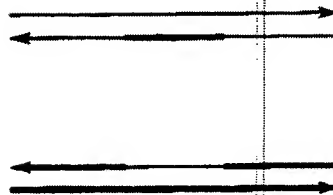


FIG. 22

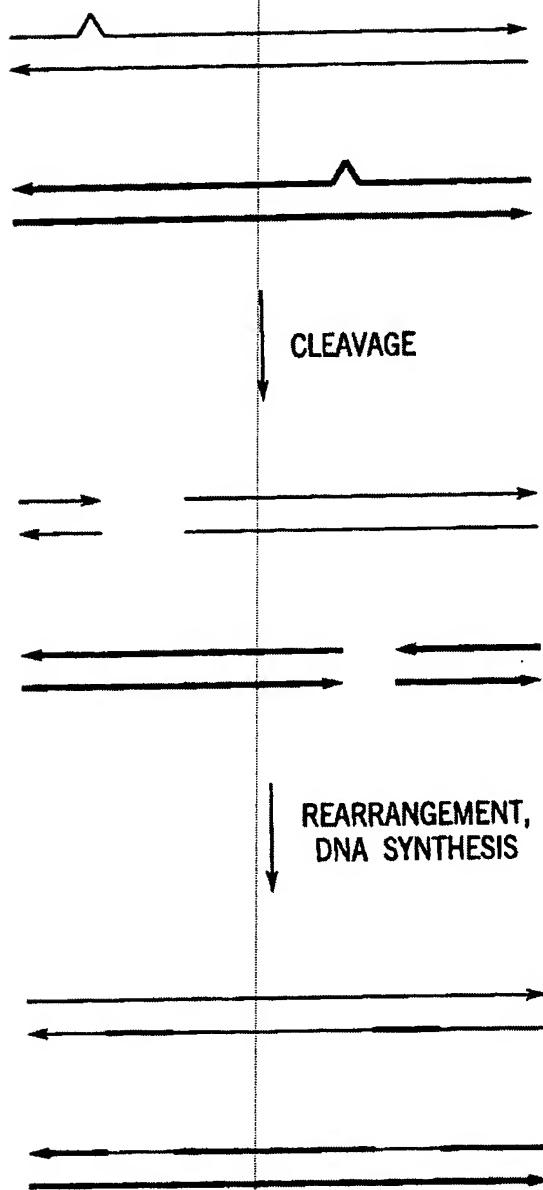
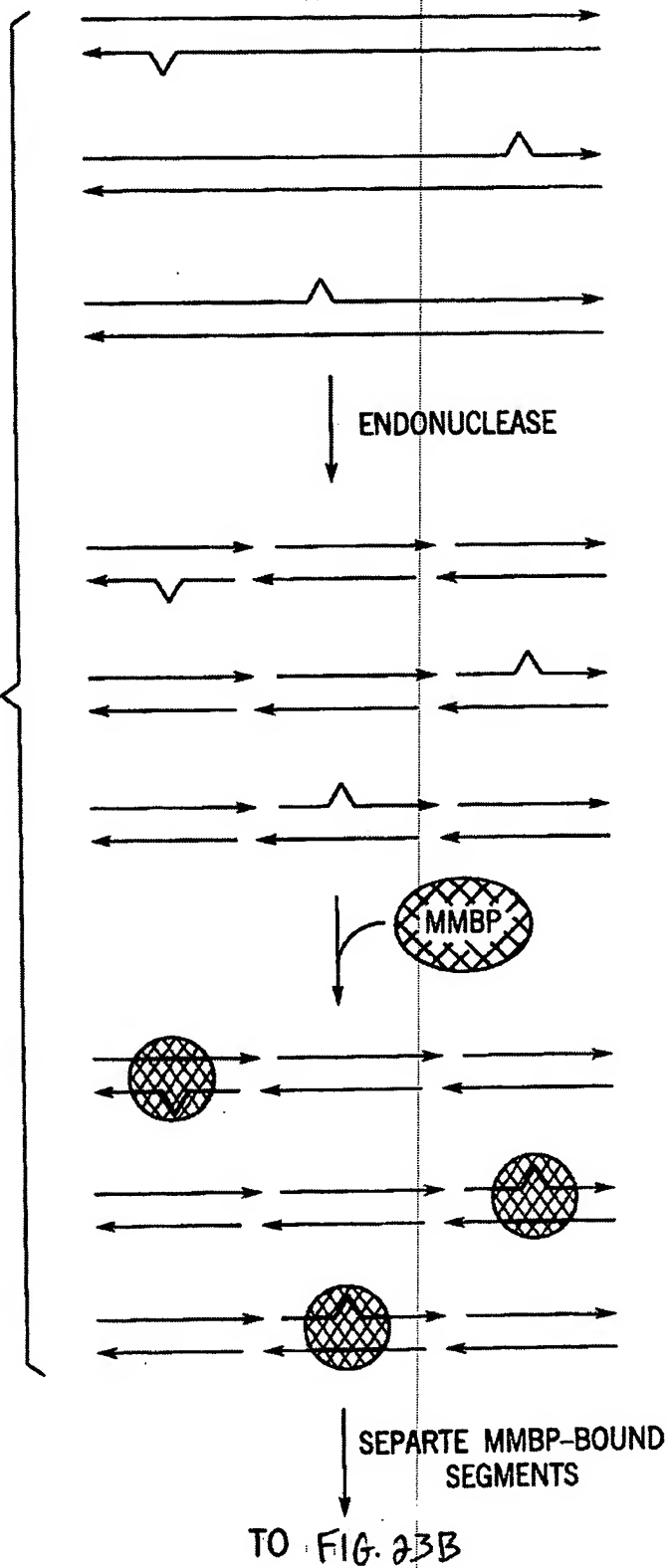
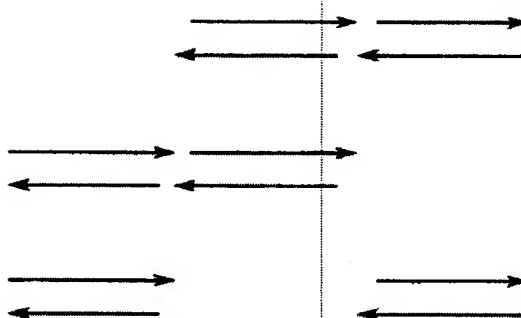


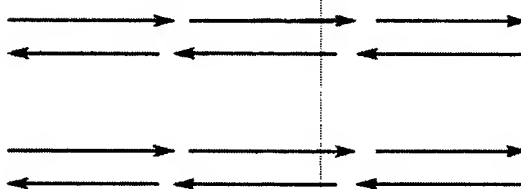
FIG. 23A



FROM FIG. 23A



ANNEAL COHESIVE ENDS



LIGATE

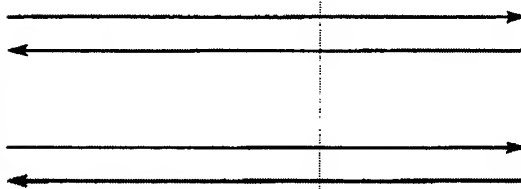


FIG. 23B

FIG. 24

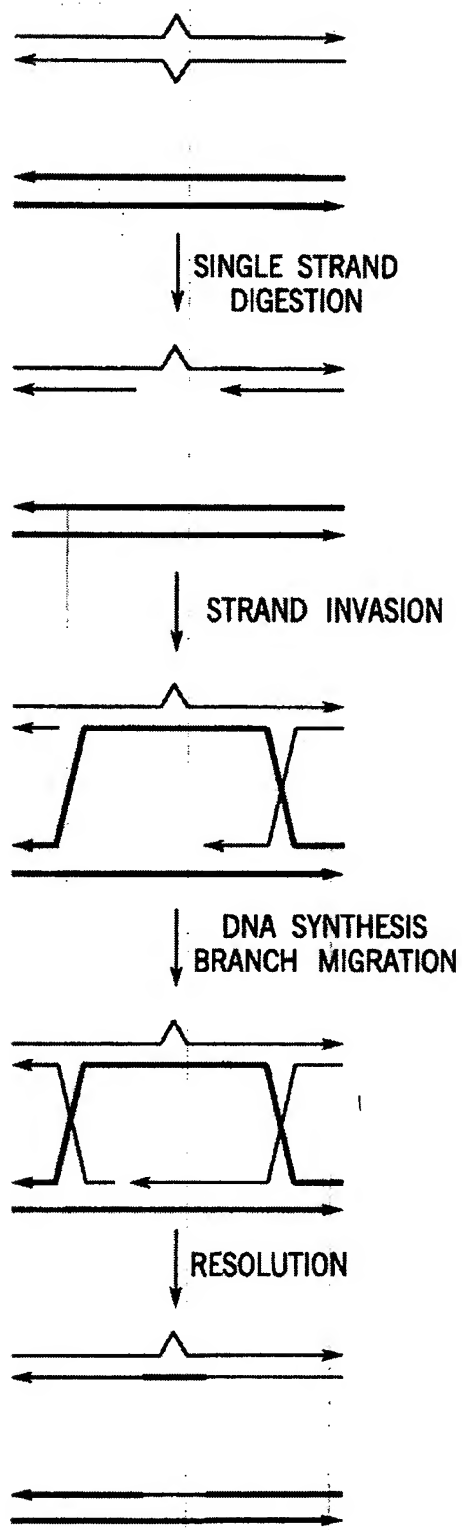


Figure 25

